

NOTES ON THE GENUS *HELINA* ROBINEAU-DESVOIDY WITH A
NEW SPECIES FROM WYOMING

(DIPTERA, MUSCIDAE)

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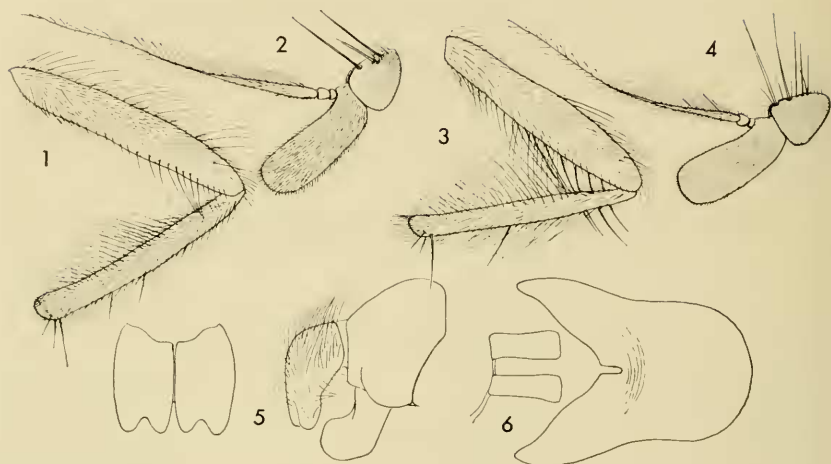
The receipt of a few specimens of flies collected in rodent holes in Wyoming by A. W. Lindquist prompted the following notes, including the description of *Helina snyderi*, new species, and additional data concerning *H. oregonensis* Malloch, a species until now poorly understood.

***Helina snyderi*, n. sp.**

Male. Length, 6.5–7 mm. Head black, light brownish gray pruinescent. Front at narrowest part distinctly narrower than distance across ocelli. Parafrontal and parafacial bright white-pruinescent, parafrontals narrowly separated, each approximately as wide as anterior ocellus and with about 7 pairs of bristles extending to narrowest part of front. Parafacial slightly wider than third antennal segment. Cheek 2.5 times as high as width of third antennal segment. Antenna wholly black; third segment twice as long as second. Aristal hairs (fig. 4) fine and closely spaced, biseriate, the longest three times as long as greatest diameter of arista and $\frac{2}{3}$ as long as width of third antennal segment. Palpus wholly black. Eye bare.

Thorax black, brownish gray pruinescent, quadrivittate, also with faint blackish lateral stripes; humerus and scutellum black. Presutural *acr* setulae in 4 regular rows, the outer rows longer and stronger than the inner rows, *acr* bristles 0:1; *dc* 2:3; *pra* 0.6 as long as posterior *ntpl*. Scutellar setulae not descending below level of marginals. *Stpl* 2:2, the lower anterior one weaker and more posterad than upper anterior one. Legs black, t_1 brown (especially basally), t_2 and t_3 and extreme apex of all f yellowish; t_1 without median bristle; f_2 with complete row of *av*, of which about 8 from basal fifth to apical third are longer than femoral diameter, also with one small *ad* and 3 *pd* apicals; t_2 with 2 (usually) or 3 median posterior bristles; f_3 with a group of 9–10 long *av* and a group of long ventral hairs in apical half; t_3 with strong median *ad* and several more setulose but nearly as long ones basad and apicad of it, ventral surfaces with several irregular rows of long fine hairs, longest at basal quarter and becoming shorter apicad, longest at least a quarter as long as tibia.

Wing pale brownish, a little deeper in color anteriorly and basally. Crossveins hardly more infuscated than surrounding areas. Costal thorn and setulae not con-



Figs. 1-6, Details of *Helina* spp. Fig. 1, mesal view of right hind femur and tibia; fig. 2, mesal view of right antenna of *H. oregonensis* Malloch; fig. 3, mesal view of right hind femur and tibia; fig. 4, mesal view of right antenna; fig. 5, lateral and posterior views of male postabdomen; fig. 6, fifth and sixth sternites of *H. snyderi* n. sp.

spicuous. Third and fourth veins slightly divergent apically. Calyptrae and halter light yellowish.

Abdomen black, grayish brown pruinose; a pair of brown spots on each of first 3 apparent tergites, those of second tergite parallel-sided or a little wider basally (anteriorly), about half as wide as long, those of second tergite roughly triangular in apical part of tergite; distinct brown pruinoscence at base of larger dorsal and lateral abdominal bristles. Basal sternite bare, others with a pair of apical bristles and many long hairs.

Postabdomen as in Fig. 5, black, surstylus slightly longer than cercus (mesolobus), broad and strongly curved; cerci together a little broader than long, each terminating in two rounded lobes; fifth sternite (Fig. 6) apically with 90° emargination at base of which is a narrow slit; sixth sternite extending in narrow strip down the right hand side and terminating as a connection between the posterior ends of two strips of sclerotic tissue.

Female. Unknown.

Holotype (No. 66434 in USNM) and one paratype, males, Evanston, Uinta County, Wyoming, July 9, 1961, ex rodent hole (A. W. Lindquist); 4 male paratypes, same data, July 17, 1961. The specific name is in honor of Fred M. Snyder for his fine work in the Muscidae.

This species is closely related to *Helina oregonensis* Malloch, which was left appended to Snyder's revision of the Nearctic species of *Helina* (1949, Bull. Am. Mus. Nat. Hist. 94, art. 3: 110-160) as the only species not seen or included. Through the courtesy of Hugh B. Leech

of the California Academy of Sciences, I have been able to examine the type of *H. oregonensis*, to prepare the accompanying figures 1 and 2, and to place the species together with *H. snyderi* in the following revised section of Snyder's key (1949, p. 117):

64. Longest aristal hairs at least 2.0 times as long as greatest aristal diameter; wings usually with crossveins very inconspicuously infuscated 65
 Longest aristal hairs not over 1.5 times as long as greatest aristal diameter; wings with crossveins distinctly infuscated; legs mostly or entirely black; scutellum entirely black 67
65. Dorsocentrals 2:4; posteroventral bristles of hind femora longest at base; wings distinctly brownish hyaline **H. ute** Snyder
 Dorsocentrals 2:3; posteroventral bristles of hind femora longest on apical half or less 66
66. Scutellum in part fulvous (margins and under side) 66a
 Scutellum wholly black in ground color; humeri and fore coxae infuscated 66b
- 66a. Humeri and fore coxae infuscated; fore tibiae without median posterior bristle; front at narrowest part not as wide as distance across posterior ocelli inclusive; middle tibiae with 2 posterodorsal bristles **H. keremeosa** Snyder
 Humeri and fore coxae fulvous; fore tibiae with median posterior bristle; front at narrowest part distinctly wider than distance across posterior ocelli inclusive **H. villihumilis** Snyder
- 66b. Longest aristal hairs barely twice as long as diameter of base of arista (Fig. 2); upper apex of second antennal segment reddish; hind femora reddish; *pra* less than half as long as posterior *ntpl*; wings quite hyaline, crossveins with but very faint clouding; middle tibiae with 3 posterodorsal bristles; hind femora with long anteroventrals on apical $\frac{2}{5}$ only (Fig. 1) **H. oregonensis** Malloch
 Longest aristal hairs at least 3 times as long as diameter of base of arista (Fig. 4); second antennal segment wholly black; hind femora black except at extreme tips; *pra* somewhat over half as long as posterior *ntpl*; wings light brownish, especially anteriorly, crossveins with scarcely perceptible clouding; middle tibiae with 2 or 3 posterodorsal bristles, usually 2; hind femora with long anteroventrals on apical $\frac{3}{5}$ (Fig. 3) **H. snyderi**, n. sp.

All of these species form a compact group with **H. maculipennis** (Zetterstedt) (syn., *H. obscuripes* [Zett.]), of the Palaearctic region. The only male postabdomen described for the Nearctic species, that of *H. snyderi*, differs but little from that of *H. maculipennis*, as shown by Hennig (1956, Die Fliegen der palaearkt. Region, Fam. 63b, Lfg. 197, pl. 9, fig. 181).